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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,702	03/19/2001	Matthew Waight	D02542	8838

43471 7590 09/21/2005

GENERAL INSTRUMENT CORPORATION DBA THE CONNECTED  
HOME SOLUTIONS BUSINESS OF MOTOROLA, INC.  
101 TOURNAMENT DRIVE  
HORSHAM, PA 19044

EXAMINER
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SHANNON, MICHAEL R

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/811,702

Applicant(s)

WAIGHT ET AL.

Examiner

Michael R. Shannon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4,5,8,9,12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8,9,12 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

While the Examiner does agree that the original rejection of record dated April 5, 2005 is improper for the reason given below, the Applicant must still provide arguments as to why the claim language is believed to be patentable over the cited references. Since no arguments to that effect were provided, the Examiner maintains the same art in this Second Non-Final rejection. The reason the original rejection was withdrawn is due to the fact that claims 4, 8, and 12 may not have been inherent in the Jung reference. Though the features are fairly obvious to one of ordinary skill in the art, as will be discussed below, they are not inherent to the Jung reference, and therefore, the original rejection is withdrawn. A Second Non-Final rejection is therefore provided in view of McMullan Jr. (USPN 5,251,324) and Jung (USPN 6,678,893).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 5, 8, 9, 12, and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over McMullan Jr. (USPN 5,251,324), previously cited by Examiner, in view of Jung (USPN 6,678,893), previously cited by Examiner.

Regarding claim 1, the claimed "cable modem for receiving down stream and transmitting upstream communication signals to a cable network having an upstream power control system for controlling power consumption" is met as follows:

- The claimed "MAC chip for synchronizing upstream communication signals, and outputting an upstream control signal" is met by the Microprocessor 504 [Fig. 4], which is the "brain" of the module, acting as a MAC chip to determine when to transmit (based on instructions sent from the head end) [col. 11, lines 58-63 & col. 15, lines 54-63].
- The claimed "upstream amplifier for receiving synchronized upstream communication signals from said MAC chip" is met by amplifier 509 [Fig. 4], which amplifies the upstream signal received from the Microprocessor and sends it to the head end [col. 13, lines 14-18].
- The claimed "complex programmable logic device (CPLD), coupled to said MAC chip and said upstream amplifier, which controls said amplifier in response to the upstream control signal from said MAC chip, such that said CPLD causes said upstream amplifier to power on during transmission of upstream signals and power off when not transmitting said upstream signals, thereby reducing power consumption of the cable

modem” is met by the anti-babble control 513 [Fig. 4], which serves to power on/off and switch on/off the amplifier 509 [col. 11, lines 65-68 & col. 13, lines 14-18].

- The claim that, “wherein said CPLD generates an amplifier switch signal for connecting said upstream amplifier to an RF tuner for transmission of said upstream data signal to said head end, and an amplifier control signal for powering on and off said upstream amplifier” is met by the anti-babble control 513, which controls the on/off switching of the amplifier 509. The anti-babble control 513 can power on/off the amplifier and can switch on/off the connection from the amplifier to the Diplex Filter 511 for transmission via RF [col. 13, lines 14-41].
- The McMullan reference does not teach that the “CPLD generates said amplifier switch signal after said amplifier control signal is generated, thereby stabilizing said upstream amplifier”. The Jung reference teaches the steps of sending a requested pilot signal to the head-end through an amplifier. The first step requires a power (control) signal to turn on the pilot signal generator [Jung, col. 4, lines 49-60]. A later step requires the switch to be activated to connect the pilot signal to the amplifier [Jung, col. 5, lines 8-13]. The two steps that take place in that order meet the fact that the CPLD generates the amplifier switch signal after the amplifier control signal is generated, thereby stabilizing said upstream amplifier. It would have been obvious to one of ordinary skill in the art at the time of

the invention to utilize the control and switch signals as taught in Jung, in order to allow the system to stabilize and allow the head-end to "receive a constant level signal" [Jung, col. 4, line 19].

Regarding claim 4, McMullan Jr. and Jung teach all of that which is discussed above with regards to claim 1. The McMullan reference does not teach that the "CPLD continues generating said amplifier control signal after said CPLD ceases to generate said amplifier switch signal, thereby truncation of said upstream data signal is avoided". The Jung reference merely teaches creating a power signal followed by creating a switching signal function to stabilize the upstream amplifier before transmission, as is discussed above with regards to claim 1. To activate the signal, Jung first generated the upstream pilot, and then switched on the upstream pilot (thereby letting the upstream pilot stabilize before it was switched). The Jung reference, however, is silent regarding the steps of switching the pilot signal generator off and then powering it down (as is claimed in reference to the upstream amplifier). The Examiner gives OFFICIAL NOTICE that it is notoriously well known in the art to turn devices off by performing the opposite steps that were taken to turn them on. For example, take a task as simple as turning on a light. In order to turn the light on, one would flip the switch to the UP position. Therefore, it stands to reason as being clearly obvious, that in order to turn the light off, one would need to do the exact opposite and flip the switch to the DOWN position. Since the steps to turn the signal on involve first generating the upstream pilot, and second, switching on the upstream pilot; the opposite steps should be fairly obvious in order to turn the signal off and consist of first switching off the upstream pilot, then,

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stopping generation of the upstream pilot. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the control and switch signals as taught in Jung, in order to allow the system to avoid truncation of the data signal and allow the head-end to "receive a constant level signal" [col. 4, line 19].

Furthermore, it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to turn off the device in the exact opposite way from how it was turned on. Just as stated above with reference to the light switch example, the steps for turning a device off should be clearly obvious once the steps for turning the device on are known.

Regarding claim 5, see the above rejection to claim 1.

Regarding claim 8, see the above rejection to claim 4.

Regarding claim 9, see the above rejection to claim 1.

Regarding claim 12, see the above rejection to claim 4.

Regarding claim 13, see the above rejection to claim 1.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4, 8 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4, 8, and 12 recite claim dependencies upon cancelled claims 3, 7, and 11, respectively. For the above art rejection, claims 4, 8, and 12 are assumed to be dependent upon claims 1, 5, and 9, respectively. Appropriate correction is required.

### ***Drawings***

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 410. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R. Shannon who can be reached at (571) 272-



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7356 or Michael.Shannon@uspto.gov. The examiner can normally be reached by phone Monday through Friday 8:00 AM – 5:00PM, with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (571) 272-7353.

**Any response to this action should be mailed to:**

Please address mail to be delivered by the United States Postal Service (USPS) as follows:

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**Or faxed to: (571) 273-8300**

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**Hand-delivered responses should be brought to:**

Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is **(571) 272-2600**.

Michael R Shannon  
Examiner  
Art Unit 2614

Michael R Shannon  
September 14, 2005

Jason Salce  
Art Unit 2614

*Jason Salce*  
9-14-05